The 50 MHz DX Bulletin

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The 50 MHz DX Bulletin was founded by Harry Schools K3HS. It is dedicated to the understanding and utilization of long distance propagation in the 6-meter Amateur band. The current editor and publisher is Victor Frank, K6FV. Subscription rates are \$24 U.S. first class mail, \$27 Canada/Mexico airmail, and \$30 by airmail elsewhere for 12 issues. Circulation matters and DX reports should be sent to Victor R. Frank, K6FV, 12450 Skyline Blvd., Woodside, CA 94062-4554 USA. My Internet address is victor.frank@sri.com. I have a web site that hasn't been updated in a long time for various classes I took at http://www.qsl.net/k6fv. The bulletin may be freely quoted, provided that credit is given.

DX Operations

Most of the listings in this column came from SM7AED's notebook and SMIRK.

Rodrigues Island, 3B9C: A multinational team of 29 operators will be active on all bands and modes with up to fifteen high-power stations. Look for them to be active by March 20, with the team leaving the island April 14. See web site: http://www.fsdxa.com/3b9c, which indicates 50.102 cw, 50.145 ssb, and 50.090 beacon.

Togo, 5V7C: F5VHQ and F5TVG plan to arrive early on March 4 to pick up the licenses and install the gear and test it out, so there's a possibility of working them earlier than the scheduled operation from March 6-12.

D.R. Congo, 9Q0AR: Gus, SM5DIC plans to go to Congo Kinshasa January 20 and stay there for two months, operating HF and 6m.

TN3S: Sal should be QRV on 80-6m until October 2005. Typically he may be found on 21.185 around 2130z.

Namibia, V51/DJ4SO: Klaus plans to operate 160-6m between February 25 and March 15.

Capri, IC8/: A group of Italian radio amateurs plans to operate HF+6m from Vivara Island (EU-031) on March 13.

Faroe Is., OY: Kevin, ON5DRE, and Erwin, ON4QJ, plan HF-6-2m operation between May 3-13.

Bermuda Is., VP9: Jon, N0JK, plans to operate 6 and 2m from June 10-15.

W3CMP plans operation from VP9GE from June 26-July 5 "to use up the rest of the QSL cards I had printed.."

Cuba, CO/IOSNY: Nicola plans 17,12, and 6m operation from Caibarien on March 9-27.

Belize, V31AD: A group of W5s plan to operate HF and possibly 160 & 6m from Placencia between March 13-20. V31RG: Robin, K4VU, and Lori, K0LAA, plan to operate 160-6m on April 7-24.

Cayman Is., ZF1A: Jim, K4BI, ZF1DC, and 3 additional ops plan to operate 6 and 2m (including 2m EME) from Grand Cayman. They will be arriving several days prior to the contest (June 12-13) and staying a few days afterward.

Dominica, J7/W6JKV: plans operating from a location on the north end with a good view over water toward Europe and USA from June 24 to July 5.

St. Maarten, PJ7: K4BI & K2ZD will be operating 50 MHz only from a rented house that overlooks the ocean with clear paths to EU, AF, & USA from July 2-12.

Revilla Gigedo, XF4IH: A group of radio amateurs plan to operate HF +6+2+2/3 and satellite from Socorro Island (NA-030) from March 3-20.

Norfolk Is., VK9NB: Babs, DL7AFS, and Lot, DJ7ZG, plan to operate 80-6m from OC-005 from March 1-15.

DX Operations Retrospective

How did they do? I have looked over OH2AQ reports to see what activity was reported for various dx stations and expeditions that advertised that they would include 6m. Indeed 6m propagation has not been all that great, but some of these dx stations just don't have what it takes to work 6m DX in the absence of wide-spread F2 propagation.

Vietnam, 3W2B: No reports on any band. Cambodia, XU7AAA: Reports are between 7-21 MHz Amsterdam Is., FT1ZL: in MF82 is waiting for 6m openings, but there have no reports of him on any band. Kenya, 5Z4HW: Sigi, DL7DF, was here in the latter half of February, but the only reports of him are between 7-28 MHz. Namibia, V51/DJ4SO: As of March 1 (Klaus is supposed to be there until March 15), only HF (7-24 MHz) has been reported.

Togo, 5V7BR: Only HF reports.

D.R. Congo, 9Q0AR: First reports started February 23, all

20, 15, and 10m.

Capri, IC8/: One 6m QSO, with IK8DYD, was listed. Bahamas, C6APX: One 6m report on Feb 12 by NW5E. Turks & Caicos, VP5/K7BV: Widespread 6m reports Feb 26-March 1 (The planned operation was Feb 19-26.) Dominica, J73CCM: One 6m report by a PY on Feb 16, otherwise 7-21 MHz.

French St. Martin, FS/K3LP: Only HF spots.
Montserrat, VP2MEG: Keith promised 6m activity. I found

one 80m contact listed on Feb. 21.

Antigua, V26DX: Jim, K4BI, may have been pleasantly surprised his previous 3 trips. This time his expectations played true, no 6m reports, ten HF reports: 18, 21, 24, & 28 MHz. Peru, Chimus Is. OC3I: A group of Peruvians activated SA-074, and were reported on 80,20, & 10m, between Feb 11-16 They self-spotted a beacon on 50.036, and there were four 6m reports from W5s on February 15.

OA7/PA3GFE: So far, only 7-28 MHz reports, but he's there

until mid-April at least.

Lord Howe Is., VK9LB: 6m was to be available on a limited basis, possibly via an ATU to a multiband HF antenna. No beacon, no continuous 50.110 watch! Lots of HF reports, NIL on 6m.

What is SMIRK and Why?

SMIRK exists to promote six meter operation all over the world. You can join the roughly 7000 members of SMIRK by working six of them and submitting their calls, SMIRK numbers, and a membership fee of US \$6 (or 6 IRCs) to Six Meter International Radio Klub, 219 US 377 South, Junction, TX 76849, USA. Dues are \$6 per year.

Solar Minimum (Cycle 23) Strategic Goals

As we approach the solar minimum of Cycle 23 and the prospect of intercontinental band openings diminishes, the board of directors has determined a set of strategic goals to work for. Jon Jones, NOJK, was instrumental in providing the impetus for the direction SMIRK will take. There are five main areas that SMIRK will concentrate on during the solar minimum:

- 1) Support and encourage DX activity within multi-hop Es range of North America and Europe. This could be "6M only" and "HF + 6M" DXpeditions as well as resident local activity in places like J3, V4, 6Y, etc. Look at the "real rare ones" in the Carib. and NA like CY9 (still needed by many), CY0, FO0 Clipperton, FP (still needed), HK0, HK0M, KP1, KP5, YV0 Aves, 4U1UN, and XF4. KP1, KP5, TI9 and YV0 Aves are some real tough ones to do...
- 2) Supporting and encouraging 6M EME DX peditions and resident 6M EME activity in all parts of the world.
- 3) Placing/supporting 6M beacons that would help spot 6M Es openings of interest. The VP9DUB beacon is an example of a beacon that will help both NA and EU operators.
- 4) Begin an education campaign to instruct new six meter operators on the band plan, calling frequencies, DX window, and operating etiquette and courtesy. The UKSMG code of conduct is a prime example of good operating procedure and should be the model.
- 5) Continue to promote the use of six meters through contests, supporting six meter dxpeditions and other high visibility options.

As we work through the solar minimum to Cycle 24 SMIRK is developing a long range plan to accomplish the goals we have set forth.

Cycle 24 Strategy

- 1) Place/support 6M beacons that will help spot F2 openings of interest, i.e.,. Easter Island, South Pacific, etc.
- 2) Supporting and encouraging DX activity at the peak of solar cycle 24. Including "6M only," "HF + 6M" DX peditions, and resident local 6M activity.
- 3) Continue to support and encourage 6M EME activity.
- 4) Consider working with UKSMG and other 6M organizations and possibly some of the HF DX groups to encourage and support 6M DXing.

RECENT SMIRK DX EFFORTS

SMIRK promotes DX activity on six meters by contributing to DXpeditions to rare locations and even arranging donations of rigs to overseas operators who show a serious commitment to operating on six meters. In some parts of the world, six has only recently become available to amateur

operation and thus equipment for the band is quite difficult to obtain. This support SMIRK provides, contributes to the operating pleasure for everyone on the band.

- 1. Contributed to CY9AA and CY0AA DXpeditions.
- 2. Contributed 6M radio to VP6BR in Pitcairn Island to remain on the island.
- 3. Contributed support for C21JH DXpedition December 2000.
- 4. SMIRK, Bob Magnani, K6QXY, and Pat Rose, W5OZI have contributed a M2 6 meter antenna, LMR coax, Kenwood TS-60 transceiver to the CE0XT DXpedition that took place in February, 2001.
- 5. SMIRK and Dale Richardson, AA5XE, have provided a six meter antenna to Alan, KI7WO for his trip to Costa Rica in October 2001.
- 6. Bob Magnani, K6QXY, and SMIRK have provided a six meter antenna and LMR 400 coax to the Conway Reef expedition in October 2001.
- 7. SMIRK has allocated funds to build, ship, install, and maintain a beacon for Easter Island. (In progress).
- 8, Provided financial support to TI9M, Cocos Island DXpedition.
- 9. Provided financial support to FP/K1TOL & FP/N1RZ DXpedition.
- 10. Provided financial support to PW0T DXpedition.
- 11. Provided financial support to CY0MM DXpedition.
- 12. Provided financial support to STORY DXpedition.
- 13. Provided financial support to 5V7C DXpedition, March 2004.

If you wish to donate to provide assistance to dxpeditions or to help provide six meter equipment to an overseas operator you may use PayPal. Please contact the Secretary if you have equipment you would like to donate. Thank you.

Silent Keys

Another two U.S. VHFers became silent keys this month, W5VAS and K6PXT.

Field-Aligned Irregularities

Many, many years ago, when I was WB6KAP, it was known as X-mode. During summer evenings, when six meter sporadic-E openings began to fade, we could hear and work stations on non-direct paths, usually to the north of great circle. Stations to the north could be heard either to the east or west of great circle. Signals had a hollow fading sound, but they were not as spread as those heard during an aurora.

Fast forward to November 1974. Recently declassified research was published in Radioscience, QST, and Ham Radio. The research involved heating the ionosphere and artificially creating field-aligned irregularities in the F and E regions with very powerful radio transmissions at 3-10 MHz beamed upwards from a site at Platteville, CO. These irregularities were capable of backscattering signals all the way from HF to low UHF. They were created at heights where the local ordinary-ray plasma frequency was just below the highpower transmitter frequency. Certain geometrical considerations had to be satisfied for observing the VHF/UHF backscattering. For co-located receiver and transmitter, VHF scattering would be observed from those heights where the ray was perpendicular to the earth's magnetic field. For separated receiver and transmitter, the rays from each had to be the same angle, but opposite side from perpendicular. Scattering was essentially into a cone whose axis was a geomagnetic field line. The scattering cross section fell off with frequency. amateurs could communicate on 10, 6, and 2 meters. 220 MHz seemed to be beyond the limit for amateur facilities.

The prevailing view among atmospheric scientists is that midlatitude sporadic-E layers are composed of metallic-ions. They occur mostly between 100 and 115 km. The metallic ions congregate due to the effects of neutral wind shears and the earth's magnetic field. Many sporadic-E layers are observed to "move," generally from E to W but also N to S. Whether this movement is due to bulk movement of the congregated metallic ions, or due to the movement of the neutral wind shears is an open question. Sometimes the layers just move out of our field of view, but often, on summer nights they decay or break up.

We now know that when a nighttime Sporadic-E layer breaks up, some areas deplete faster than others, creating elongated "holes" aligned with the earth's magnetic field. These holes are capable of coherently scattering VHF waves in a manner similar to the field-aligned irregularities which were produced in the ionospheric heating experiments described earlier. The main difference between the two is that the ionospheric heating experiments created a localized effect, over the heater, while sporadic-E can occur over wide areas simultaneously. The other difference is that ionospheric heating produced an effect that was localized in altitude, most often in the F region, while sporadic-E occurs most frequently at altitudes between 100 and 120 km.

The December 2003 issue of *Journal of Geophysical Research, Ionosphere and Upper Atmosphere*, had two articles dealing with coupling between unstable sporadic-E layers and midlatitude spread F. The term "unstable" refers to the condi-

tion described in the previous paragraph.

A variety of experimental sensors were used. Perhaps the one of most interest to 6m operators was a CW Doppler radar called SESCAT (Sporadic-E SCATter) operating at 50.52 MHz from the northern coastline of Crete. The transmitter antenna consisted of an array of four 11-element Yagis separated by 8m which provided an overall 3-dB beamwidth of 8°. The receiving site had an array of 11-element Yagis separated by 8m with a beamwidth of 16°. Both antennas were directed northward to a region 170-210 km away where perpendicularity to the geomagnetic field was obtained at Eregion heights.

Other experimental sensors included CASI (Cornell All-Sky Imager) on the Greek island of Milos near the E-region scattering volume monitored by SESCAT. CASI uses a thinned and back-illuminated CCD that is liquid-cooled. In addition to wide-band images used for correction and star removal, the instrument had narrow-band optical filters at 557.7-nm (green), 630.0-nm (red), and 777.4-nm (infrared). Green airglow emissions are predominately from the E-region, and the red airglow emissions are predominately from the F-region. Both are due to transitions of electron states of atomic oxygen. Their intensity is proportional to the number of transitions per unit time, which varies roughly with the number of ions present of the particular species.

Ionosonde data was obtained from a digisonde at the new ionospheric station at Penteli (38°N, 23.5°E), ~150 km NE of the SESCAT observing region. During the summer of 1996, a portable ionosonde CADI (Canadian Advanced Digital Iono-

sonde) was operated in Milos.

In the experiments reported in the latest JGR, a relationship was found between patchy sporadic-E in the SESCAT observation area and spread F observed with the ionosonde. Note that what was compared was: 1)the occurrence of 50 MHz backscatter observed with SESCAT with 2)spread-F echoes between 2 and 10 MHz observed with ionosondes, and 3)patterns of airglow intensity variations.

The 50 MHz backscatter echoes presented had Doppler shifts between +150 Hz (approaching) and -400 Hz (receding). These are due to small scale (~meter) irregularities. The ionosonde records showed typical range spreading of ~100 km and are due to intermediate scale (1-50 km) ionospheric structures.

The optical records showed structures ranging from 200-1000 km in size.

The authors argue that enhanced polarization fields set up inside sporadic-E patches can easily (at night) map up the magnetic field lines to the F-region and thus contribute to the formation of midlatitude spread F. "Mapping up the magnetic field lines" means that the F region effect will be equatorward of the unstable sporadic-E region source.

High velocities were observed with the Doppler radar (some more than 200 m/s). High local electric fields (some more than 10 mV/m, considerable higher than ambient) are required to explain these drifts. The coupling was described as follows: "the initiation and duration of backscatter does not usually coincide with that of spread F. The latter normally starts somewhat later but often persists longer, sometimes after sunrise, after which the F-region structures are washed out by photoionization." The authors don't indicate that small scale sporadic-E irregularities will be replicated in the F region, but they do write that VHF coherent scatter from the midlatitude F region is "very rare." In addition, they mention that there are times spread-F is present without sporadic-E.

I would like your assistance in finding out "how rare" this coming summer. Unfortunately few amateur 6m reports include accurate direction of arrival information or the extent of Doppler shift or spread. Signals are frequently strong enough that stations often don't even bother swinging their beams. Add to that the possibility of mixed sporadic-E and backscatter, and you've got a real problem in making sense

out of the data.

The situation is much improved on 2m (and 222 MHz), where signals are weaker and antenna beams are narrower. I am thus calling for 2m and 222 MHz Es reports and especially reports of reception of back- and side-scatter signals during this coming summer's Es season. I wish to determine if any of these reports cannot be explained by scattering from the sporadic E-layer. Geometrical constraints will limit the height at which FAI can be observed. Stations in the southern half of the USA, Mexico, and the Caribbean have the highest chance of observing FAI from the F region. Keep in mind that the experimenters found that midlatitude FAI backscatter is strictly a nighttime phenomenon.

We already know that 2m Es backscatter is possible. Stations are doing it every summer. Now, how about 222 MHz? Are there enough motivated amateurs well-enough equipped to make up a 10 dB or so deficit compared to 144 MHz to make QSOs by this mode? Is there a JTxx processing mode for auroral-like signals, something that would show a waterfall

spectral display?

Please include in your reports as much quantitative data as possible. This means: 1)times, 2)stations (locations), 3)beam direction, 4)honest signal reports, 5)estimate of spectral spread.

Oh, and you might just tune up to 50.52 MHz with your

beam on Crete this summer!

Dec 03-Jan 04 DX Reports

The following reports of 50 MHz and higher DX propagation are courtesy of JA1VOK, W5UWB, XE2HWB, K6QXY, and postings on the Internet. Apologies to any sources I may have inadvertently neglected.

The first entry is *mmddhhii*, where *mm* is the month, *dd* is the day of the month, *hh* is the hour UTC, and *ii* is the minutes after the hour. The year is understood to be 2004. Symbols used include: V=Video Carrier, I=Inband video sidebands, F=FM audio, B=beacon, C=CW, J=JT44, P=PSK31, R=RTTY, S=SSB, W=mode not mentioned (or both CW & SSB), H=heard only. (BSc) = backscatter.

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Reports of Africa	3	Repo	rts of E	urop	е	02201904 SV2ASE 02291526 SV8UM	P/A 41 52>JM75GU	50.120 50.135	SV1DH 9H1YZ
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02182029 ZD8VHF 539 50.032 B 02182047 ZD8VHF 519 50.032 B 02182238 ZD8VHF >IM88WV 50.032 B	EA7KW 02201 9H1YZ 02210 EH5AGR 02210	131 OE5MPL 813 OE5MPL 954 OE3XLB	QRZ JT6M CQ JT6M 519 JN87>J080	50.230 50.230 50.058 B	G4PCI F4JVG SP6MLK	ISLE OF MA	ANN		
02192126 ZD8VHF 559 50.032 B 02202220 ZD8VHF 559 50.032 B 02212121 ZD8VHF 559 50.032 B	EA7KW 02240 EA7KW 02241 EA7KW 02271	951 OE3XLB 959 OE5UAL 052 OE3XLB	WEAK >J080 JN68>JN54 519 JN87>J080	50.058 50.152 50.058 B	SP6MLK I4JED SP6MLK	ITALY	10/4>3099	50.230	SMUTSC
03222051 ZDBVHF 559 50.032 B 02272059 ZDBVHF 559 50.032 B 02282248 ZDBVHF 559 50.032 B	EA7KW 02290 EA7KW 02290 EA7KW 02290	849 OE5MPL 856 OE5MPL 945 OE5MPL	W/OZ5AGJ JT6M JT6M JT6M	50.230 J 50.230 J	OZ5AGJ G4PCI	02071648 IH6YF 02080949 IW4DQY 02102218 IW3SNU	CQ EME	50.210 50.230 J 50.230	OH6Y OESMPL OZ1DJJ
Reports of Africa ASCENSION IS. 02102233 ZDBVHF 559 50.032 B 021721245 ZDBVHF 539 50.032 B 02182029 ZDBVHF 539 50.032 B 02182024 ZDBVHF 519 50.032 B 02182238 ZDBVHF 519 50.032 B 02182238 ZDBVHF 519 50.032 B 02182238 ZDBVHF 559 50.032 B 02202220 ZDBVHF 559 50.032 B 02212121 ZDBVHF 559 50.032 B 02272051 ZDBVHF 559 50.032 B 02222201 ZDBVHF 559 50.032 B 02222248 ZDBVHF 559 50.032 B 02272059 ZDBVHF 559 50.032 B 02272059 ZDBVHF 559 50.032 B 02212121 ZDBVHF 559 50.032 B 02212121 ZDBVHF 559 50.032 B 02212123 ZDBVHF 559 50.032 B 02212121 ZDBVHF 559 50.032 B 02211213 JCVIDEO S5 QSB 50.001 V 02151402 3CVIDEO S6 QSB 50.001 V 02151402 3CVIDEO S7 QSB 50.001 V 02161243 3CVIDEO S7 QSB 50.001 V 02191320 3CVIDEO S7 QSB 50.001 V 02191320 3CVIDEO S7 V 02291455 3C VIDEO S7 V 02291455 3C VIDEO S7 V 0291628 TROA 519 50.048 02081520 TROA 519 50.048 02021740 TROA 559 50.048 02291628 TROA 519 50.048 02291628 TROA 579 50.048 02291628 TROA 579 50.048 02291628 TROA 579 50.048 02291631 TRSCA 519 CQ 50.110 02291631 TRSCA 519 CQ 50.110 02291648 TRSCA CQ CW 50.110 02291654 TRSCA S2 >JN53 50.115 KENYA 02191320 5ZVIDEO S5 V V MAURITANIA 02102316 5TSSN QQ CW 50.110 02201646 TRSCA CQ CW 50.110 02291655 5TSSN QQ CW 50.110 02201646 5TSSN QQ CW 50	SV1DH AZO	DRES		50.110	TKJZAQ	02141220 II2PV 02151027 IK2XDF 02191632 IK5RLF	52>JN65 VOLTA MEM 52>JO80IK SHO	50.150 50.150 RT .167	S57RR S57RR SP6MLK
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02182116 5T5SN CQ CW 50.110 02201546 5T5SN 30W GP -2300 50.030 B	DL8YHR 02290 DL8YHR	840 OK1KRY	RANDOM JT6M	50.230 J	OZ5AGJ	02111804 GIOBFD	55A	50.150	G4PCI
MOROCCO 02162132 CN8MC S7 50.027 B	PY1RO 02052 02102	034 OZ1DJJ 026 OZ1DJJ	CQ JT6M CQ JT6M	50.230 50.230	G4PCI G0CHE	NORWAY 02051957 LAITV 02061809 LAITV	CQ JT6M	50.230	G4PCI G4PCI
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02161152 ZS6WB 59 PEAK 50.110 02161155 ZS6AXT 50.110 02161233 ZS6TWB 519 50 044	5B4FL 02201 5B4FL 02210 5V1DH 02241	543 OZ1DJJ 838 OZ5AGJ 812 OZ6ABA	CQ JT6M 2727 & 1017	50.230 50.230 50.130	G4PCI F4JVG	02182016 LAITV 02192019 LAITV 02221340 LAITV	CQ JT6M CQ JT6M	50.230 50.230 50.230	G4PCI G4PCI G4PCI
02161237 ZS6TWB 51/2 QSB 50.044 B 02161256 ZS6WB 50.110 02161304 ZS6WB 51 >J045 50.110	1K0FTA 02242 5B4FL 02242 073K 02242	011 OZ4LP 135 OZ8ZS 148 OZ4LP		50.138 50.150 W	SM6 IQD DL1 EJA	02241849 LASAV 02241917 LA1V 02241934 LASWF	55A >0 51A CQ 51A	50.140	PAUO PAUO PAUO
MAURITANIA 02182116 5T5SN CQ CW 50.110 02201546 5T5SN 30W GP -2300 50.030 B MOROCCO 02162132 CNBMC S7 50.027 B 02182222 CNB LOUD 50.027 B 02292111 CNBMC S3 50.027 B 02292111 CNBMC S3 50.027 B SAO TOME 02291620 S9TX 53>JM75GU 50.110 02291622 S9TX 59 CQ 50.110 02291623 S9TX 52 50.110 02161152 ZS6MB 59 PEAK 50.110 02161233 ZS6TWB 519 50.044 02161233 ZS6TWB 519 50.044 02161235 ZS6MB 51 > J045 50.110 02161236 ZS6WB 51 > J045 50.110 02161237 ZS6NK CW 50.110 02161304 ZS6WB 51 > J045 50.110 02161256 ZS6WB 59 PEAK 50.110 02161257 ZS6NK CW 50.110 02161257 ZS6NK CW 50.110 02291212 ZS6NK 599+JM75FV 50.110 02291212 ZS6NK 599+JM75FV 50.110 02291221 ZS6NK 559 CQ 50.110 02291221 ZS6NK SFRONG 50.110 02291221 ZS6NK SFRONG 50.110	5B4FL 02280 9H1PA 02290 IK0FTA 02291	840 OZ1DJJ 826 OZ5AGJ 005 OZ1DJJ	2727 JT6M CQ JT6M CQ JT6M	50.230 J 50.230 50.230	F4JVG F4JVG F4JVG	02281950 LB1HF 02290857 LA1TV	CQ JT6M CQ JT6M	50.230 50.230 50.230	G4PCI F4JVG
02291215 ZS6NK CQ 599 50.110 02291221 ZS6NK 559 CQ 50.110 02291223 ZS6TWB 559 KG46RD>JM19 .043 B	9A1Z DOI EA6VQ	DECANE	SIS	50 016 B	CITE DVD	02290944 LA8AV	CQ JT6M	50.230	G4PCI
02291225 ZS6NK STRONG 50.110 02291228 ZS6DN 529>JN61 50.050 B 02291229 ZS6TWB 579 50.043 B	EA6VQ IKOFTA IKOFTA ENC	GLAND	200MW+DIPOL	50.016 B	SVSBIK	02151658 SP6GWB 02211541 SP6MLK	CQ JT6M 41/51 >J082KL	50.230 50.190	G4PCI SP6NVN
02291230 ZS6NK 59 50.115 02291234 ZS6WB JT6M MAX -1DB 50.230 02291324 ZS6WB 50.120	1K0FTA 02211 9A1Z 02291 9H1YZ 02291	227 GOJHC 037 G3UYM 601 G3UYM	2727 JT6M CQ JT6M CQ JT6M	50.224 50.230 50.230	F4JVG G4PCI F4JVG	SARDINIA		50 150	TSUSAM
02291325 ZS6WB 57 50.120 02291329 ZS6AXT 55 50.110 02291402 ZS6WB 53 50.130	9H1YZ 9H1YZ 5B8AV EST	ONIA	FF2. 7040V2	F0 00F		SCOTLAND		30.130	1500111
02291423 ZS6TWB 529 KG46>JM75 50.044 B 02291455 ZS6TWB 529 KG46>JM75 50.044 B 02291455 ZS6TWB 519 50.044	9H1XT 02111 SV1DH	639 ES5AM K	:038>J094 030°	50.134	SP2IQW	02071242 GM4WJA 02092139 MM5AJW 02111549 GB3LER	CQ JT6M 1088>J099 55A>J049UQ	50.230 50.230 50.064 B	G4PCI SMOTSC LA1TV
02291723 ZS6NK CW 50.111	5B4FL 02111 02111	TAND 733 OH3XA 739 OH3XA	56A KP21GA 53A	50.095	DK5AI GOCHE	02111606 GM3UA 02111726 GM4WJA 02111756 GM7PBB	55A>J049UQ 55A CQ 55A>1090	50.100 50.130 50.142	G4PCI G0CHE
Reports of Asia	02111 02111 02111	805 OH3XA 806 OH8QW 838 OH3BHL	52A 53A>K003	50.095 50.185 50.096	G4IGO SP2IQW SP4JWD	02121614 GB3LER 02131502 GM6VXB 02141108 GM4WJA	MS QSO CQ JT6M	50.230 J 50.230 J	OZ1DJJ F4JVG
02291521 5B8AV 51 BSc 50.130	SV1DH 02142 02241	217 OH9SIX 148 OH9SIX 846 OH6YF	539>JO80 57A KP36 STRONG	50.067 B 50.067 B 50.169	SP6MLK SM2CEW LA1V	02151127 GB3LER 02171951 MM5AJW 02191716 GM6VXB	519 JN16 CQ JT6M	50.063 B 50.230 50.230	F4JVG G4PCI G4PCI
JAPAN 02082136 JE1BMJ EME QSO 50.037	02242 02242 IW5DHN 02242 1000FKI 02282	105 OH3HL 130 OH6YF	SCATTER	50.135 50.170	OZ4LP SMOTSC	02201649 MM5AJW 02210928 GM6VXB 02210944 GM6VXB	CQ JT6M	50.230 J 50.230 50.230	GOCHE F4JVG F4JVG
C2161459 ZS6NK	VK3SIX 02282 02282	116 OH3MF 134 OH6YF	57A CQ AURORA	50.100	SM2CEW OH6Y	02211236 GM6VXB 02281924 MM5AJW 02290929 GM4WJA	JT6M CQ JT6M CQ JT6M	50.230 50.230 50.230	F4JVG G4PCI DG5AAG
1VIALAYSIA, WEST 02100940 9M2TO	JAIVOK FRA JE2XBY 02021	NCE 740 F6FHP	519 BSc	50.110	EA7KW	02291637 GM4WJA 02291707 GM4WJA 02291914 MM5AJW	2626 JT6M	50.230 J 50.230 J 50.230	F4JVG ON6AB G4PCI
02150703 9M2TO 419 50.005 B 02270805 9M2TO >PM85 50.005 B 02290518 9M2TO >PM85 50.005 B	JE2XBY 02211 JR2HCB 02220 JR2HCB 02220	301 F1GTU 839 F4JVG 905 F4JVG	JT6M 7SEC & 0905 CQ JN16	50.230 W 50.230 W	OZ5AGJ S59F S59F	SERBIA 021 92226 VIII	TIMEM > TAME	50.230	071077
TAIWAN	02221 02291 02291	358 FX4SIX 018 F4JVG 041 F5LNU	51 QSB>JN660A CQ JT6M CQ JT6M	50.315 B 50.230 50.230	IV3GBO G4PCI G4PCI	02231015 YU8XL	BIG BURST	50.230	PA2DB
2111VI3 B1/NOBIV QIF 320 ES 31.298	02291	323 FIGTR	CQ JT6M	50.230	G4PCI	O2241711 IT9YAF	CQ	50.110	9H1PI

SLOVENIA 02071155 S59F CQ JT6M > IN88 50.230 F1NNI 02080930 S51DI 46/27 IVAN 50.230 J OE5MPL 02140858 S57RR 57 A ROMA 50.150 IKOBAL 02140901 S57RR 55 QSB > JN54 50.150 IWABET 02141730 S59F CQ JT6M 50.230 G4PCI 02150912 S57RR 59 JN65 > JN86 > J0.150 9A4K	GUADELOUPE 02160108 FG5GP JAMAICA 02292308 6Y51C MAPTINIOUE 50.110 PY30G	02291607 VP5/K7BV 559 ×1922 MS .110 K4RX 02291608 VP5/K7BV 559 ×1922 MS .110 K4RX 02291946 VP5/K7BV 559 MS PINGS .110 W4SO 02292005 VP5/K7BV PL31 CW CQ 50.110 NM5E 02292242 VP5/K7BV 59 DENNIS 50.110 PY30G 02292244 VP5/K7BV 559 CQ DX 50.106 K4RX 03010003 VP5/K7BV 579 50.00 50.106 PY1RO
02241338 S57RR 59 JN65>JN655 J165 H IKIEGC 02241807 S57RR CQ IAC 50.160 H IKIEGC 02241826 S57RR JN65TM>JN530Q 50.160 HZ5EKV 02242044 S57RR CQ IAC 50.165 HZ5EME 02242103 S57RR 599 JN65>JN45 50.165 HZ5EME 02242116 S57RR CQ IAC 50.165 HZ2FOB 02242119 S57RR 339 J078FM 50.150 SM6CTQ 02242204 S57RR 519>J099 50.165 H SM0TSC 02242204 S57RR 559>J055 50.165 H OZZZS	MARTINIQUE 02190049 FM5WD	United States, W1 02070408 KB12Q 59>FLA 50.135 W4GDC 02121320 KIDAT FM16>EM142 50.135 KG4QMI 021221703 KBIJRI FN34 50.143 AB4GG 02122023 WAINYV FN42 50.130 KD4K 02122027 NIPOJ EM74>FN43 50.137 KD4K 02151517 WIJJ 449 MS 50.125 NW5E 02162238 WAINYV FN42>EM61 50.125 NW5E
SVALBARD 50.120 OH5LK 02121954 JW5RIA 50.120 OH5LK 02121956 JW5RIA STRONG 50.120 SM3XRJ 02122017 JW5RIA 55 50.120 H LA6PV 02122038 JW5RIA 559>J049UQ 50.121 LA1TV	01210339 XE2ED	02162244 WAINYV SS FN42>EN61 50.130 K9DXR 02162326 WAINYV FN42 WKG W98 50.125 K1TTT 02162331 WAINYV WEAK FN42>EN52 130 W9RM 02162353 NINNS >EN52 50.125 W9RM 02181740 WIALS 56 BSC FN55>FN65 125 VE9KAR 02242320 NIRAM 55 FM18 50.125 N3DB
SWEDEN 50.230 G4PCI 02081846 SM0TSC CQ JT6M 50.230 G4PCI 02111532 SM5LE 59A>JO49UQ 50.130 LAITV 02111645 SM4/OZIBNN 57A JP61 30*.140 SP2IQW 02111706 SM4/OZIBNN CQ AURORA 50.140 SP2IQW 02111706 SM4/OZIBNN CQ AURORA 50.140 SP2BDR 02111711 SM0TSC CQ AURORA 50.147 SP2BDR 02111712 SM5BMB 55A 1091>J099 50.103 G3NVO 02111724 SM7FJE 57A 1091 50.099 G4RGK 02111715 SM7AED 55A J065>JN59 50.090 D19NDC 02111753 SM7AED 55A J076>J094 20* LA5EKA 02111758 SM7RYO 55A J076>J094 20* SP2IQW 02152023 SM7XON JT6M 50.230 J G4PCI SP2IQW	02030129 XE2YW 50.110 K51X 02030130 XE2SNG DM30>EL29 50.120 K51X 02030137 XE2TH 50.155 K51X 02030159 XE2NBE 50.151 K51X 02030201 XE2ED DM10 50.027 B WQ5W 02030201 XE2ED DM10 50.023 B K0GU 02030215 XE2TH DM30 50.160 K0HA 02030218 XE2NBE EL05>EM17 50.110 N0JK 02030228 XE1AY DK79>EM12 >0328 .125 WQ5W 02030304 XE1AY DK79 ON CW 50.107 K5AEM 02040105 XE2TH DM30>DL44 S XE2HWB 02040113 XE2T2P DM30>DL44 S XE2HWB 02040115 XE2TH/m DM30>DL44 S XE2HWB 02040320 XE2ED >DL44 B XE2HWB 02040320 XE2ED DM10>DN70 50.028 B K0GU	United States, W2 02071600 K2DRH 59 WSJT EN41 50.243 K7BV/1 02072337 K2DRH EN41×EL99 50.175 WIIS 02121530 W2/K3KYR 55 WKG 4* 50.145 N3DB 02121616 W2/K3KYR FN24×EM95 50.145 K8YC 02121645 K2ERG FN13>EM93 50.137 K3IXD 02121659 K82EB FN32×EM66 50.101 WN4M 02121712 WB2AMU FN30×EM93 50.128 K3IXD 02121725 WB2MX FN32 50.159 AB4GG 02121725 WB2MX FN32 50.126 K4KJZ 02162333 W2/K3KYR FN24 50.135 K4KJZ 02162333 W2/K3KYR FN24 50.135 K4KJZ 02162338 N2NB CQ>EN52 50.139 W9RM 02170038 N2NRD FM29×EN10 50.130 K0HA
02211418 SM6NZV JT6M 50.227 J G4PCI 02241956 SK7MP NAC 50.147 0224LP 02242016 SM6C CQ 50.150 0Z4LP 02242028 SM0V 50.150 SM3SGP 02242114 SM0BSO 50.175 SM3SGP 02242142 SM6CTQ 539>JN65 50.150 S57RR SWITZERLAND	02040324 XEZED DM12 WKG 48 50.125 NOJK 02040337 XEEDC,XEZHWB DL44>CM88 B K6QXY 02040337 XE1AY 55/57 DK79>CM88 S K6QXY 02040351 XE2UAS 55/57 DM41>CM88 S K6QXY 02040405 XEZVAS >CM99 50.125 KY5N 02072251 XF1K DL47>EM12 50.125 KY5N 02072314 XELJP 59 EK09 50.125 K4FX 02072317 XF1K DL47>EM16 50.120 AE5B 02072317 XF1K DL47>EM10 50.120 AE5B	United States, W3 02040055 KB3HJA FN20 50.125 K5IX 02040157 W3MEL EM32>FN10 50.155 N0EYE 02040426 W3CMP FN10>FN42 50.125 K1SG 02040527 N3DB FM18 CW 50.125 K0HA 02051800 W3VD FM19>EN10 50.064 B K0HA 02051804 W3/KL7GLK FM18>EN10 50.076 B K0HA
02131758 HB9CXZ 50.110 HB9OAB 02112059 HB9SIX 422 JN47YG>JN37PR B F4BIT 02121350 HB9BYZ 50.125 KG4QMI 02141035 HB9SIX 429 JN47>J050 TR.058 B DK2EA 02171616 HB9SIX 529 TR JN47QG>J050UF B DK2EA	02080002 XEIMEX EK08 50.115 AK3E 02080008 XEIMEX FN20>EK08 50.115 K3AX 02080012 XEIMEX 59 EK08 50.115 K4RX 02080015 XEIKK 549 FM18 50.023 B N3DB 02080022 XEIMEX EK08 50.115 N3DB 02080021 XEIMEX EK08 50.115 N3DB 02080131 XEIMEX	02080129 N3DB 579 FM18>EM17>E050.125 W9RM 02100223 W3UUM FM16>EL29 50.130 KG4QM1 021221647 K3TKJ FM28 DE AL 50.130 VZ3SUB 02122106 K3TKJ FM28>EN10 50.155 K0HA 02151726 N3DB 569 SC 50.125 NW5E 02170104 K3FCD FM29 50.150 K0HA
UKRAINE 02070749 UT5G 579 KN66LS 50.084 SM5CEU 02070832 UR5QDM 559-579 KN77 50.110 021DJJ 02070842 UT5G 559 50.084 B 021DJJ 02070852 UU5SIX 539 50.080 B 021DJJ 02091232 UT5G 559 Es 50.084 B G4FUF	02080146 XEIMEX 52>EN70 50.115 AJ9C 02112008 XEIKK 50.023 B W4RV 02112341 XEIKK EK09>EL98 50.023 B W4VQ 02140010 XEIKK 599 50.023 B W4SO 02140406 XEIKW 599 DM10>EM02 50.028 B AE5B 02142149 XEZED 599 DM10>EM02 50.028 B AE5B 02150212 XEZSNG DM30 50.125 AE5B 02150212 XEZSNG DM30 FE 61 4055 WEFT	02170050 N3DB FM18 50.150 K0MN 02170103 Wa3WUL FM29>EN10 50.165 K0HA 02170211 N3DB FM18>EM69 50.150 NM9P 02292248 W3/KL7GLK S8 FM18 50.075 B N2EA United States, W4
Reports of North America	02151924 XE3PNH CANCUN >EM12 50.125 W25W	02020037 W4/W2VD1 50.129 KB8TGH 02020052 N4GM EL96 50.150 KB8TGH
operite of mortal sumoriou		
BAHAMAS 02040015 C6ANM BAHAMAS CQ 50.130 NE1B 02040020 C6AFF 599 FL16 -0318 50.063 B K7BV/1 02040038 C6AFF 559 509.063 B K7BV/1 02040335 C6ANM CQ 50.125 NE1B 02040349 C6AGN FL16>EN52 50.122 K9RO 02040351 C6AGN 58 BILL 50.122 N9NS 02120342 C6APX VY WEAK FL15 50.125 NW5E 02150035 C6AFF 439 50.063 B N3DB 02151611 C6AFF ≻EM02 50.062 B AE5B	PUERTO RICO 02070120 KP4BI MANUEL 54.043 AF4Y 02102356 WP4F S1 50.072 B PYIRO 02160111 WP3HV STRONG 50.110 PY3OG 02192358 WP4FRK 59 50.120 WP4NEG 02202346 WP4NEG 57>GF38 50.110 PY3OG 02232352 WP4NEG 59 50.110 PY3OG 02232352 WP4NEG 59 50.110 PP5NW 02260025 WP4NEG 59 50.110 PY1NB 02292247 NP4P 59 ROBERTO 50.110 PY3OG	02032147 W4CHA 579 FM18 50.080 N3DB 02032152 K4AHO 599 50.078 B N3DB 02032216 W4CHA ELB8>FN31NL 50.080 B WY1U 02032238 WA4DOS 50.130 N1NK 02032315 W4CHA 589 ELB8 50.079 B K7BV 02032319 NY4PD 59 ELB9 50.136 K7BV 02032319 NY4PD 59 ELB9 50.136 K7BV 02032310 W4/W2VDI CQ CW 50.099 K7BV/1 02032345 KG4RWO EL965-FN32 50.150 K1TTT 02032356 W4/M311 59 FM18 50.140 N3DB 02040034 K4UTE FM16-EM90 50.160 KG4CMT 02040039 W4GDC FM16 >EM90 50.160 KG4CMT 02040039 W4GDC FM16 >EM90 50.160 KG4CMT
BAHAMAS 02040015 C6ANM BAHAMAS CQ 50.130 NE1B 02040020 C6AFF 599 FL16 -0318 50.063 B K7BV/1 02040038 C6AFF 559 50.063 B K7BV/1 02040038 C6AFF 559 50.063 B K7BV/1 02040335 C6ANM CQ 50.125 NE1B 02040335 C6ASM FL16≻EN52 50.122 K9RO 02040351 C6AGN 58 BILL 50.122 N9NS 02120342 C6AFX VY WEAK FL15 50.125 NW5E 02150035 C6AFF 439 50.063 B N3DB 02151611 C6AFP ≻EM02 50.062 B AE5B BERMUDA 02032200 VP9DUB 599 FM18 50.026 B N3DB 02072355 VP9GE 57 50.110 AE5B 02072355 VP9GE CQ 50.121 W4FF 02141294 VP9DUB 579 FM18 50.026 B N3DB 02151608 VP9GE CQ 50.121 W4FF 02142249 VP9DUB 579 FM18 50.026 B N3DB 02151608 VP9GE 44 50.026 B N3DB 02151608 VP9GE 44 50.026 B N3DB	PUERTO RICO 02070120 KP4BI MANUEL 54.043 AF4Y 02102356 WP4F S1 50.072 B PY1RO 02160111 WP3HV STRONG 50.110 PY3OG 02192358 WP4FRK 59 50.120 WP4NEG 02202346 WP4NEG 57>GF38 50.110 PY3OG 02202346 WP4NEG 59 + 50.110 PY3OG 02232352 WP4NEG 59 + 50.110 PY3OG 0226225 WP4NEG 59 + 50.110 PY3OG 022622247 NP4P 59 ROBERTO 50.110 PY1NB 02292247 NP4P 59 ROBERTO 50.110 PY3OG ST BARTHELEMY 02110020 FJ5DX VY STRONG 50.120 PY5ZHP 02160051 FJ5DX CQ DX 50.110 PP5NW 02180000 FJ5DX CQ DX 50.110 PP5NW 02292257 FJ5DX CQ CQ S0.115 PY3OG	02032147 W4CHA 579 FM18
BAHAMAS 02040015 C6ANM BAHAMAS CQ 50.130 NE1B 02040020 C6AFP 599 FL16 -0318 50.063 B K7BV/1 02040038 C6AFP 559 50.063 B K7GUN 02040334 C6ANM CQ 50.125 NE1B 02040334 C6AGN FL16>EN52 50.122 K9RO 02040351 C6AGN 58 BILL 50.122 N9NS 0215035 C6AFP 439 50.063 B N3DB 02151611 C6AFP ≻EM02 50.063 B N3DB 02151611 C6AFP ≻EM02 50.063 B N3DB 02032200 VP9DUB 599 FM18 50.064 B N3DB 02072355 VP9GE 57 50.110 AE5B 02072355 VP9GE 57 50.110 AE5B 02142347 VP9DUB 599 FM18 50.026 B N3DB 02151608 VP9GE CQ 50.121 W4GF 02142249 VP9DUB 599 FM18 50.026 B N3DB 02151608 VP9GE 44 50.121 W4GF 02171907 VP9DUB 599 FM19 50.026 B N3DB 02151608 VP9GE 44 50.121 NW5E 02171907 VP9DUB 599 FM19 50.026 B N3DB 02152608 VP9GE 44 50.121 NW5E 02171907 VP9DUB 599 FM19 50.026 B N3DB 02152608 VP9GE 44 50.121 NW5E 02171907 VP9DUB 595 FM19 50.026 B N3DB 02152608 VP9GE 50 50.121 NW5E 021712132 VE1YX FN74>EN82 50.125 NW5E 021212132 VE1YX 599 BEAMING C6 50.125 NW5E 021212135 VE1YX FN74>FM04 50.125 W4TO 02121315 VE1YX FN74>FM04 50.125 W4TO 02121315 VE1YX FN74>FM04 50.125 W4TO 02121315 VE1YX FN74>FM04 50.125 W4TO	PUERTO RICO 02070120 KP4BI MANUEL 54.043 AF4Y 02102356 WP4F S1 50.072 B PYIRO 02160111 WP3HV STRONG 50.110 PY3OG 02192358 WP4FKK 59 50.120 WP4NEG 02202346 WP4NEG 57>GF38 50.110 PY3OG 02202352 WP4NEG 59 + 50.110 PY3NG 02202025 WP4NEG 59 + 50.110 PY3NG 02292247 NP4P 59 ROBERTO 50.110 PY1NB 0210020 FJ5DX VY STRONG 50.110 PY3OG ST BARTHELEMY 02110020 FJ5DX VY STRONG 50.120 PY5ZHP 02160051 FJ5DX CQ DX 50.110 PP5NW 02180000 FJ5DX VY STRONG 50.120 PP5JD 02240020 FJ5DX CQ DX 50.110 PP5NW 02292257 FJ5DX CQ DX 50.110 PP5NW 02292257 FJ5DX CQ CQ 50.115 PY3OG ST KITTS & NEVIS IS. 02291846 V44KAI 50.055 B 5T5SN ST LUCIA 02160034 J6/WAIT VY STRONG 50.110 PP5NW 02160037 J6WAIT SSB LOUD 50.110 PP5NW 02160037 J6WAIT SSB LOUD 50.110 PP5NW 02160005 J6/WAIT *129 50.110 PP5ND 02180005 J6/WAIT *129 50.110 PP5ND 02190240 J69EN 53 FK94>GG52 50.110 PP5DD	02032147 W4CHA 579 FM18
## BAHAMAS 02040015 C6ANM	PUERTO RICO 02070120 KP4BI MANUEL 54.043 AF4Y 02102356 WP4F S1 50.072 B PYIRO 02160111 WP3HV STRONG 50.110 PY3OG 02192358 WP4FK 59 50.120 WP4NEG 02202346 WP4NEG 57>GF38 50.110 PY3OG 02202346 WP4NEG 59 + 50.110 PY3OG 02232352 WP4NEG 59 + 50.110 PY3NB 0226025 WP4NEG 59 + 50.110 PY3NB 02292247 NP4P 59 ROBERTO 50.110 PY3NB 0210020 FJ5DX VY STRONG 50.110 PY3OG ST BARTHELEMY 02110020 FJ5DX CQ DX 50.110 PP5NW 02160051 FJ5DX CQ DX 50.110 PP5NW 02160051 FJ5DX CQ DX 50.110 PP5NW 02292257 FJ5DX CQ CQ 50.115 PY3OG ST KITTS & NEVIS IS. 02291846 V44KAI 50.055 B 5T5SN ST LUCIA 02160034 J6/WAIT VY STRONG 50.110 PP5NW 02160057 J6/WAIT SSB LOUD 50.110 PY2SP 02180005 J6/WAIT *129 50.110 W PY1RO 02190225 F5/WJARS 50.125 K3LP TURKS & CAICOS 02260046 VP5/K7BV CW F131 50.110 NW5E 02261529 VP5FKU CW EM60 50.110 KB4ET FMARTIN 02261529 VP5FKU CW EM60 50.110 KB4ET	02032147 W4CHA 579 FM18
## BAHAMAS 02040015 C6ANM	PUERTO RICO 02070120 KP4BI MANUEL 54.043 AF4Y 02102356 WP4F S1 50.072 B PY1RO 02160111 WP3HV STRONG 50.110 PY3OG 02192358 WP4FK 59 50.120 WP4NBG 02202346 WP4NBG 57>GF38 50.110 PY3OG 02202346 WP4NBG 59 + 50.110 PY3OG 022022247 NP4P 59 ROBERTO 50.110 PY3OG 022022247 NP4P 59 ROBERTO 50.110 PY3OG 025025 WP4NBG 59 + 50.110 PY3OG 026160051 FJ5DX CQ DX 50.110 PY3OG 026160051 FJ5DX CQ DX 50.110 PY5NW 0210006 FJ5DX W/ FG5FR 50.120 PY5ZHP 02160051 FJ5DX CQ DX 50.110 PP5NW 02292257 FJ5DX CQ DX 50.110 PP5NW 02292257 FJ5DX CQ CQ 50.115 PY3OG ST KITTS & NEVIS IS. 02291846 V44KAI 50.055 B 5T5SN ST LUCIA 02160034 J6/WA1T VY STRONG 50.110 PP5NW 02160035 J6/WA1T SSB LOUD 50.110 PY2SP 02160103 J68AR 50.105 PY2SP 02160103 J68AR 50.105 PY2SP 02190240 J69EN 53 FK94>GG52 50.110 PP5JD ST MARTIN 02190252 F5/W3ARS 50.110 K3LP 02231812 FS/N8II 50.125 K3LP TURKS & CAICOS 02261529 VP5/K7BV CW PL31 50.110 KB4ET 02261540 VP5/K7BV CW SEM60 50.110 KB4ET 022616600 VP5/K7BV CW CQ 50.110 WGF 022616600 VP5/K7BV CW CQ 50.110 WGF 022616600 VP5/K7BV CW CQ 50.110 WGF 02261660 VP5/K7BV CW CQ 50.110 WGF 02261660 VP5/K7BV CW CQ 50.110 WGF 02261665 VP5/K7BV CW CQ 50.110 WGF 02261665 VP5/K7BV CQ SPM60 50.110 KB4ET 02261665 VP5/K7BV CQ SPM60 50.110 WGF 02261665 VP5/K7BV CQ CO SPM60 50.110 WGF	02032147 W4CHA 579 FM18
## BAHAMAS 02040015 C6ANM	MARTINIQUE	02032147 W4CHA 579 FM18

	EO 137 KG4UAV	02051829 KOHA 50.125 N3DB
02101708 KB4ET RTTY 50.130 R K4JAF 02101717 AA4DF 599 EM70 50.125 N3DB 02101742 W4CHA 559 EL88-EM17 50.079 B NOJK	020400425 K6LGL DM04>DL44 S XE2HWB 02040427 WA6TFZ DM15>DL44 S XE2HWB XE2HWB	02051829 KOHA 02051854 KOETC 539 02070121 KOHA 59>EL98JH 50.125 NN4X 02072249 KOXXX 59 EM77-DN70 50.125 KOGU
02101820 N4FNG CQ 50.110 WIJJ 02121312 K4AHO 559>FN42HE 50.076 B K1DAT	02040428 W6KBX CM98>DL44 S XE2HWB 020404930 AC6QD DM14>DL44 S XE2HWB N6DKP	02080029 W01JR 579 50.065 B NBUUP 02080046 K0HA 59>FM29 50.125 W5KI 02080112 K0UO 57 >FN23 50.079 B W2MPK 02080114 K0ETC EM27>EN10 50.140 K0HA
02121407 W4CHA 569 EL88>FN42HE .079 B K1DAT 02121428 K4AHO 569 EL98>FN42 50.076 B K1DAT	02070200 W6ZI 59+ 50.132 A3E 02100044 W6ZI CQ 50.143 AK3E 02142051 WA5TFZ DM15 50.125 K5IX	02080314 KOETC EM27-EN10 50.140 KOHA 02080421 KOETC 559 EM27-DN70 50.070 B KOGU 02080422 KODLW DN76-EM12 DAN 50.130 WQ5W
02121545 KC40R EM74>FN74 50.144 VE1YX V2121643 KD4NVM FM27 WALLOPS IS .125 VE3SUB	02142117 KG6DHQ S9 DM04>EM10 50.137 K5AB 02142131 KG6DAI BURBANK >EM10 50.070 B K5AB 02150104 WA6TFZ DM15>EM02 50.130 AE5B	02080424 KOKP 599 EM36>EM12 50.073 B WQ5W 02081716 NOPB 59 EM39>DN70 50.125 KOGU 02081718 KOGU 59 EM39>DN70 50.132 NOPB
02101708 KB4ET RTTY 50.130 R K4JAF N3DB 20101717 AAADF 599 EM70 50.125 N3DB 20101742 W4CHA 559 EL88-EM17 50.079 B NOJK 02101820 N4FNG CQ 50.110 W1JJ 20121312 K4AHO 559-FN42HE 50.076 B K1DAT 20121405 KE4SIX 549 EM83>FN42HE .063 B K1DAT 20121407 W4CHA 569 EL88-FN42HE .063 B K1DAT 20121428 K4AHO 569 EL98-FN42 50.076 B K1DAT 20121428 K4AHO 569 EL98-FN42 50.076 B K1DAT 20121439 KA4D TN>FN42 50.130 K1DAT 20121645 KC4OR EM74>FN74 50.144 VE1YX 20121643 KD4NVM FM27 WALLOPS IS .125 VE3SUB 20121722 K4AL EM66>FN42 50.145 N1JFU 20121781 KG4QMI FM16>EN82 50.125 VE3SUB 20121827 KB4ET 55 EM60>FN42HE 50.133 K1DAT 2012121827 KB4ET 55 EM60>FN4EHE 50.135 K1DAT 4DB 20142246 K4AHO 549 EL98 50.076 B WJJJ 9K8R	02150106 KG6DHQ DM04>EM12 50.140 WQ5W 02161841 K6FV 599+ CM87>D033 50.069 B VA6SZ 02190347 K6GXO DM04>EN10 50.125 KOHA	02092324 KOKT 50.125 K5TX 02092329 KOUO 579 50.080 B N3DB 02092340 KOKP 599 >EM75 50.099 K4KWK
02142246 K4AHO 549 EL98 50.076 B WJJ 02142346 W4WRL FM04>FN65 50.137 VE9KAR	United States, W7	02092340 KOKP 599 >EM/5 50.130 KG4QMI 02100027 KOETC FM16>EM27 50.150 KG4QMI
02142350 KE4KVW EMB0>FN65 50.125 VESKAR 02150047 W4SO 559 EL96>FN65 50.130 VESKAR 02151543 W4/N8CJK ORLANDO FL 50.125 K8KS	United States, W7 1031900 W7s NV,AZ MS QUADR. >CM88 K6QXY 1110350 W7s AZ >CM88 K6QXY 1110350 W7s AZ >CM88 K6QXY 1110350 W7s AZ >CM88 K6QXY 1220300 W7s AZ >CM88 K6QXY 1220300 W7s AZ >CM88 K6QXY 12203014 K7SP DM33>EM17 50.135 H NOJK 20203014 K7SP DM33>EM17 50.135 H NOJK 2030149 W7/WB4LDS/M 59 DM42>EM20 2030149 W7/WB4LDS/M 59 DM42>EM20 2030155 N7WB DM44 50.210 W5DN 2030155 N7WB DM44 50.210 W5DN 2040314 WA7X >DL44 B XEZHWB 202060340 K7AYP CN85>DM12 >CM88 K6QXY 202060400 WA7X, W7s AZ >CM88	02100040 K0ETC 59-FM19 02100045 K0ETC 59 EM27-FM29 50.160 W5KI 02100212 K0VUY 55 FWD Sc 50.150 NW5E
02151546 W4/N8CJK 559 50.125 K4RX 02151629 KG4RWE EL96 50.125 AE5B 02151636 KD4FLP EM95>EM12 50.130 WQ5W	01220300 W7s AZ >CM88 K6QXY 01262XXX W7s AZ >CM88 K6QXY 0200347 K7TOP VY WEAK DM43>EM12 WQ5W	02100225 NOVZJ 55 ENJ5 50.125 NW5E 02121816 KOETC 539 FM18 50.070 B NJDB 02122042 WAOEFB FM16>EM48 50.135 KG4QMI
02162332 K4JZ 50.130 K1TTT 02162350 K4PTN EM56>FN32 50.140 K1TTT 02170006 KE4IKM 50.130 WA1ZYX	02030114 K7SP DM33>EM17 50.135 H N0JK 02030149 W7/WB4LDS/M 59 DM42>EM20 W5DN 02030155 N7WB DM44 50.210 W5DN	02122108 WODYI FM16>EM48 50.135 KG4QMI 02122127 KCOQMO FM16>EM39 50.125 KG4QMI 02150348 KOKP 53A AUR 50.073 B K9MU
02170105 K4TQR 579 EM63>DN70 50.060 B K0GU 02170116 N4NX FM15>EM73 50.134 VE3IEM 02170224 K4TQR EM63>DN70 50.060 B K0GU	02040314 WA7X >DL44 B XE2HWB 02060340 K7AYP CN85>DM12 50.125 N7CW 02060400 WA7X W7s AZ >CM88 B K6QXY	02161802 KOKP 599 EN36>DN70 50.073 B KOGU 02161905 KOGU WEAK DN70>EN52 50.125 W9RM 02170005 KBOPE 599 50.097 W1JJ
02221604 W4/WB2QLP 50.125 K5IX 02230119 W4NP EM96>EM79 50.125 WZ8D 02250126 N40YT EM92 50.125 NW5E	02060440 KA7BGR DM12>CN82 50.074 B N6CW 02070759 W7GJ EME CLG 5T5SN 50.190 F6FHP 02080234 NW70 DN26>F8N10 50.130 K0HA	02170029 KORPT 50.125 N4HN 02170106 KORPT EN10 50.125 K5IX 02170111 KBOPE EM48>FN42 50.190 NJJFU
02250136 W4JKG VY WEAK EM91 50.125 NW5E 02250231 W4EJG FM05>EM43 50.125 K0MN 02270300 W44BUT EM50>EM40 50.125 N5UXT	02080258 W7YM 59 DN57>EM17 50.125 N0JK 02080310 K7HLN DN36>EM17 50.145 N0JK 02080310 K7PUN DN31>EM10 50.125 K0HA	02170148 KAOBVG 59 EN13>FM18 50.125 KA6AKH 02170238 KOETC EM27>DN70 50.070 B KOGU 0225027 KOHA 57 EN10>EN90 50.125 ABBJH
United States, W5	02040314 K7AYP CN85>DM12 50.125 N7CW 2060440 WA7X, W78 AZ > CM88 B K6CXY 2060440 KA7BKP DM12>CN82 50.074 B N6CW 02070759 W7GJ EME CLG 575SN 50.190 F6FHP 02080234 NW7O DN26>EM10 50.130 K0HA 02080258 W7YM 59 DN57>EM17 50.125 N0JK N0JK 02080310 K7HLN DN36>EM17 50.125 N0JK N0JK 02080312 KB7RUQ DN31>EM10 50.125 K0HA 02080318 NT1J DN44 W/ KC0HFL 50.125 K0HA 02141803 KD7UWF DW26>EN10 50.125 K0HA 02141803 KD7UWF DW26>EN10 50.125 K0HA 02141808 K7JE DM33>EN10 50.125 K0HA 02141808 K7JE DM33>EN10 50.125 K0HA 02141902 KD7UWF DM26>EN10 50.125 K0HA 02141902 KD7UWF DM26>EM10 50.125 K0HA 02141903 WA7X DM49>EM02 50.070 B AE5B	02250240 KOHA 59 ES 50.135 N3DB 02250316 KOHA EN10 02290343 KGNUL/O 419 RN48>EN44 .125 K9MU
01102055 W5s TX	02141838 K70E DM33>EN10 50.125 K0HA 02141902 KD7UWF DM26>EN45 50.125 W5ZN 02141901 WA7X DM49>EN02 50.070 B AE5B 02142045 WA7JTM/F DM43 QRP 2.5 W.125 AE5B	Poporte of Oceania
01190438+W5SIX	02142112 W7JLC/M DM34 50.125 K5IX 02142124 WA7JTM DM43 50.125 AA5XE 02161853 N7IJ DN44>EN10 50.125 K0HA	Reports of Oceania AUSTRALIA, General
02170224 K4TQR EM63>EN70 0221604 W4/WB2QLP 02230119 W4NP EM96>EM70 02250126 N40YT EM92 02250136 W4JKS VY WEAK EM91 02250136 W4JKS VY WEAK EM91 02250231 W4ELG FM05>EN40 02270300 WA4BUT EM50>EM40 0270300 WA4BUT EM50>EM40 01102055 W55 TX 0XM88 01190057 W55 TX, OK 01190438+W5S1X 01190438+W5S1X 01262XXX W58 NM 01262XXX W58 NM 01270230 W55 TX, OK 0125 K6QXY 01262XXX W58 NM 01270230 W55 TX, OK 0130057 W55 TX, OK 0130057 W55 TX, OK 0140055 W55 W50 015057 W55 W50	United States, W8	01120142 VK TV VID S9+ 46.240,46.172 V K60XY 01210111 VK TV VIDEO >CM88 46.XX V K60XY 02150259 VK TV VIDEO S1 46.240 V K60XY
02030156 W5WVO M065 50.125 W5DN 02030450 W5SSG 50.125 S0.125 K15YH 02030452 KK5LE EM31 LOUISIANA 50.125 W5DN 02030452 KK5LE EM31 LOUISIANA 50.026 W5DN 02030452 KK5LE EM31 LOUISIANA 50.025 W5DN 02030	United States, W8 02030034 KCBCC DM33 50.125 K5IX 02030043 KCBCC 50.125 K5IX 02040049 NBII WV 50.125 K5IX 02040149 KBBB MICHIGAN 50.125 W5DN	Australia-New South Wales-VK2
02040208 W5VAS 589 EM40 50.060 B K7BV 02040223 W5EUQ EL88 50.132 N3TDE 02040245 W5CIA 59 EM40 50.140 K7BV/1 02040246 WA5LFD EM12>FN00 CW 50.093 K3HX	02040149 K8BB MICHIGAN 50.125 W5DN 02040209 KC8QDQ EM89 CQ, CQ 50.200 N0JK 02072353 K8PLF EN81>DN70 50.074 B K0GU 02080026 N8UUP EN82>DN70 50.125 K0GU	01120158 VK2BN 519/559 >CM88 50.110 C K6QXY 01210156 VK2ZXC 539/579 50.110 C W6JRA
02040316 N5VGS FM16>EM22 50.170 KG4QM1	02080033 N8PUM S9 EN65>DN/0 50.068 B KUGU	Australia-Victoria-VK3 02220514 VK3DUT SSB 50.110 JG3LEB
02040343 WQ5W EM12 50.135 KG4UAV 02040344 W5JLC 50.135 N6HY 02040412 N5XYO DM90>EN82 SONORA .160 K8KS	02080142 WARRJF EN91>EM17 50.125 KG4QMI 02121715 ABRNG FM16>EN72 50.125 KG4QMI 02121735 WARFTA FM16>EN72 50.140 KG4QMI 02121756 K87ES FM16>FN02 50.140 KG4QMI 02121786 K87ES FM16>FN02 50.140 KG4QMI 02121919 WARISC EM72>EM80 50.140 KG4QMI 02121919 WARISC EM72>EM93 50.128 KJIKD 02122124 NBUUP 50.125 H K4KJZ 02150113 WB8VLC DM34>EM12 50.140 WQ5W	Australia-Queensland-VK4 02042254 VK4ADM S9 50.130 VK5UBC 02151126 VK4RTL 50.087 B JG3LEB
02040419 KD5YCY EM02 50.160 AE5B 02042009 W5VAS EM40>EN10 50.060 B K0HA 02070104 W5VAS 419 50.060 B N3DB	02121756 KBZES FMI6>FNU2 50.140 KG4QMI 02121843 WDBPTB FMI6>ENR0 50.140 KG4QMI 02121919 WA8ISC EM72>EM93 50.128 KJIXD	
02070154 W5VHF 599 EM25>EL98JH .125 NN4X 02070242 W50ZI 59 50.130 K4RX	02122124 N8UUP	02151130 VK4RTL >QM05 50.0875 B JAIVOR 02170627 VK4RG 529 QSB 50.1058 B JEZXBY 02170652 VK4AHW 59 50.1125 JEZXBY 0220903 VK4AHW >PM63 50.112 JG3LEB 02250643 VK4JOO SSB 50.110 JG3LEB 02250651 VK4AN 50.110 SHILLTO CZSDOTO VK4AN 50.110 SHILLTO CZSDOTO VK4AN 50.110 SHILLTO CZSDOTO VK4AN 50.110 JG3LEB 02250702 VK4AN 50.110 JG3LEB 50.110 JG3L
02072313 KK5LE 02072313 KK5LE 02072330 W5HN EM13>DN70 50.070 B K0GU	02170030 WBDN EN70-FM29 50.135 N2NRD 02180023 K8ZE EN82-EN61 50.125 K9DXR 02180026 KC8NYY EN82-EN61 50.125 K9DXR 02281824 KB8U EN71 50.125 NW5E NW5E	02250643 VK4JOO SSB 50.110 JG3LEB 02250651 VK4AN 50.110 S HL1LTC 02250702 VK4AN CW 50.110 JR2MCB
02070154 WSVNF 599 EM25>EL980H .1.25 02070242 W50ZI 59 50.130 K4RX 02070400 W05V 59 >FLA 50.130 W4GDC 02072313 KK5LE 02072330 W5HN EM13>DN70 50.070 B K0GU 02080304 K5VIP EL98 50.125 K0HA 02080432 N5VGS EM22 50.125 K0HA 02080456 W5WVO DM65>EN13 50.125 K0HA 02080458 W5WVO DM65>EN35 50.125 K0HA 02080458 W5WVO DM65>EN35 50.125 K0EKL	02281844 N8CJK 339 MS 50.125 NW5E 02281824 KB8U EN71 50.125 NW5E	02260446 VK4BLK CQ CW STRONG 50.111 JG3LEB 02270433 VK4RGG 539 50.057 B JH7XRZ 02290447 VK4RGG 5PMR5 50.058 B JRZHCB
02090151 WB5NRI EM22 50.125 K5IX 02092325 K5CM 539 EM25>FM29 50.125 H W5KI	United States, W9 02040032 K9VNM FM16>EL89 50.160 KG4QMI	02280450 VK4JSR 59 CQ 50.110 JR2HCB 02280455 VK4TU 50.150 JR5KPG
02100059 KB5AAB 50.125 KB0FRF 02100216 W5VAS 579 50.060 B N3DB 02100228 KC5JYW FM16>EL29 50.130 KG4QMI	02072245 WD9EMF 599 EM57>DN70 50.100 K0GU 020722358 K9YC 59 EN52>DN70 50.125 K0GU	02280504 VK4JSR 59 50.140 DS4E0I 02280509 VK4BLK CQ-PM85 50.110 JR2HCB
02100234 W5AOV FM16>EL19 50.130 KG4QM1 02100241 NW5E EL98-EM17 50.125 NOJK 02101450 W5GTA FM16>EM20 50.125 KG4QM1	02080011 KA9CFD 50.135 K4KJZ 02080049 K9MU EN44>DN70 50.061 B K0GU 02100034 NK90 50.135 K4KJZ	02280516 VK4JSR 50.140 DS5KJR 02280532 VK4BLK SSB WKG JAS 50.130 HLLLTC
02101500 WbGAI FM16>EM10 50.125 KG4QMI 02101508 WbShNI FM16>EM22 50.130 KG4QMI 02101512 W5AOV FM16>EL19 50.130 KG4QMI	02100113 WB9QFW 559>EL98 JUSTIN .099 NWSE 02121720 W9/VE3CDP DON >FM29 50.125 N3TR 02121739 W9JUV EN62>FM16 50.140 KG4QMI	02280556 VK4ID SSB 50.140 JG3LEB 02280600 VK4APG 59 >PM37 50.210 HL1LTC
02101536 KASTUJI FM16>EM20 50.130 KG4QMI 02101541 KASROW FM16>EM25 50.130 KG4QMI 02101541 KASROW FM16>EM25 50.130 KG4QMI 02101541 KASROW FM16>EM25 50.060 B.N3DB	02121742 N9SVE FMI6>EN63 50.140 KG4QMI 02121753 KC9CTV FMI6>EN61 50.140 KG4QMI 02121758 KC9BGK FMI6>EN61 50.140 KG4QMI	South Australia-VK5 02280510 VK5VF WEAK>PM85 52.450 B JR2HCB
02121508 KD5HLG 579 EL73>FN42HE .075 B K1DAT 02121745 K5BZM FM16>EM18 50.140 KG4QMI 02122170 N5FI RM32 50.129 W3MEL	02122029 N9BJJ FM16-EM58 50.125 KG4QMI 02122037 W9/VE3CDP EM58-FM16 50.135 KG4QMI 02122156 WD5PMF 599 FM18 50.100 N3DB	West Australia-VK6
02140400 NW5E EL98>EN82 50.125 K8KS 02151527 NW5E MS PINGS 50.125 K8KS 02151538 K05NOR ELOR 50.125 NW5E	02150308 K9MK 02161829 K9MK WEAK EN44>DN70 50.125 AJ4F	02030334 VK6JJ 59 50.130 VK5UBC 02030940 VK6BE >PM53 50.110 C JA6RJK
02151640 N5FU EM32>EL96 50.140 WB2TQE 02151704 KK5LE 59 N EM32 50.140 N5FU 02151745 W52K0CJ 50.125 WB2TQE/4	02161852 WB9WHQ EN45>DN70 50.125 K0GU 02161996 W9RM 529 EN52>DN70 50.125 K0GU 0216236 W99L FN61 50.076 W1JJ	02151105 VK6RSX >QM05 50.304 B JA1VOK 02151106 VK6RSX 50.304 B JG3LEB
02151810 W5/K0CJ 55 EL16 50.125 NW5E 02152255 NW5E CQ DX 50.111 K4RX	02162241 WP9L EN61>FN31 50.076 B K7BV 02162348 WD9EMF EM57>FN32 50.130 KITTT 02170000 2700 PM50-FM42 50.131 N1JFU	02200526 VK6JA 50.110 W VK5UBC 02280940 VK6RSX 50.304 B JG3LEB
02200124 KD5HOV EL17 50.125 K4KJZ 02221543 W5UWB EME 50.203 IW5DHN 02231712 W5LINE FME 50.203 IW5DHN	02170059 K19A EM58 50.131 K2QPN 02170201 KA9PCU EM40-FM18 50.140 KA6AKH 02170217 KPN12 FM42-FM18 50.140 KA6AKH	02291130 VK6RSX 50.304 B JG3LEB
02240004 NSRNU EM04>EM15 VY SHORT W5SSG 02260006 NWSE 559 50.110 K7BV/1	United States, W0	Australia-lasmania-VK/ 02200534 VK7ZIF 59 50.110 W VK5UBC 02220512 VK7RST 50.298 B JG3LEB
02281458 W50ZI CQ DX 50.111 K5AB 02281515 K5AB 579 50.106 W5DN 02291554 K5AB CW 50.110 W5DN	01031900 W0s CO MS QUADR. >CM88 K6QXY 01121700 KAOCDN, KOEC, W0s CO B K6QXY 01190057 KAOCDN, KOUO, NOLL, KOEC B K6QXY	Australia-Northern Terr.
United States, W6	01190057 W0s CO,NE,KS > CM88 K6OXY 01190133 NOLL 55/59 KS LARRY S K6QXY 01271640 KAOCDN,K0EC,NOLL > CM88 B K6QXY	02020655 VKBRAS >QM05 50.1047 B JAIVOK 02020656 VK8GF >QM05 50.110 H JAIVOK 02150556 VK8RAS 50.047 B JG3LEB
01190438+W6s S.CA DM04,13,14 SHORT K6OXY 012101111-K6ODV BSc 230° >CM88 K6QXY 01262XXX W6s S.CA. >CM88 K6OXY	01271640 WOS CO,KS,NE >CM88 K6QXY 02011615 W01JR >DL44 B XE2HWB 02011630 NOLL, WOS CO >CM88 B K6QXY	02150622 VK8RAS 599>FM37 50.047 B HILITO 02151247 VK8MS >QM05 50.110 H JAIVOK 02151247 VK8MS CQ SSB 50.110 JG3LEB
02030134 WA6DKN DM04 50.125 K5IX 02040240 KG6JAI >DL44 B XE2HWB 02040325 K6NHK >DL44 H XE2HWB	02040218 KOUO WEAK EM07>EN90 50.079 B AB8JH 02040259 KOHA 50.155 NS4C 02042024 KOHA 50.125 K5IX	02250651 VK4AN CO 2250702 VK4AN CO 2250702 VK4AN CO 226046 VK4BLK CQ CW STRONG CO 2260446 VK4BLK CQ CW STRONG CO 1.110 JR2HCB CO 2280450 VK4JSR 59 CQ 50.110 JR2HCB CO 2280455 VK4JSR 59 SO.140 JR5XPG CO 2280458 VK4JSR 59 SO.140 JR5XPG CO 2280458 VK4JSR 59 SO.140 JR5XPG CO 2280515 VK4BLK BIG SIG SO.130 JR5XPG CO 2280515 VK4BLK BIG SIG SO.130 JR5XPG CO 2280516 VK4JSR SB WKG JAS CO 2280516 VK4JSR SB WKG JAS CO 2280516 VK4HV SSB 59 SO.110 JR5XPG CO 2280556 VK4HV SSB 59 SO.120 HL1LTC CO 2280565 VK4PL SSB 50 SO.130 HL1LTC CO 2280565 VK4PL SSB 50 SO.130 HL1LTC CO 2280516 VK4PR SSB 59 SO.120 HL1LTC CO 2280515 VK6APK SSB 59 SO.120 HL1LTC CO 2280515 VK6APK SSB 59 SO.120 HL1LTC CO 2280516 VK4PR SSB 59 SO.120 HL1LTC CO 2280510 VK5VF WEAK>PM85 SO.140 JG3LEB CO 2030334 VK6PJ 59 SO.140 JG3LEB CO 2030334 VK6BS 59 SO.140 JG3LEB CO 2030340 VK6BE PM53 SO.130 HL1LTC CO 2030327 VK6RPH SP SO.304 B JG3LEB CO 2151105 VK6RSX SO.304 B JAIVOK CO 2151106 VK6RSX SO.304 B JAIVOK CO 2151106 VK6RSX SO.304 B JAIVOK CO 2200526 VK6DA CO 2280540 VK6RSX SO.304 B JAIVOK CO 2200526 VK6DA CO 203034 VK72IF 59 SO.304 B JG3LEB CO 2291130 VK6RSX SO.304 B JG3LEB CO 2200534 VK7ZIF 59 SO.304 B JG3LEB CO 2200534 VK7ZIF 59 SO.304 B JG3LEB CO 2200554 VK7ZIF 59 SO.304 B JG3LEB CO 2200555 VK8RS SO.306 SO.110 W VK5UBC CO 200565 VK8RS SO.306 SO.110 W VK5UBC CO 200565 VK8RS SO.306 SO.110 H JAIVOK SO 2150565 VK8RS SO.306 SO.110 H JAIVOK CO 2150565 VK8RS SO.306 SO.110 H JAIVOK CO 2150565 VK8RS SO.306 SO.110 H JAIVOK CO 2150562 VK8RS SO.306 SO.110 H JAIVOK CO 2151247 VK8MS SOM05 SO.110 H JAIVOK CO 2151247 VK8MS SOM05 SO.110 H JAIVOK CO 2151247 VK8MS SOM05 SO.110 H JAIVOK CO 2150562 VK8RS SOM05 SO.110 H JAIVOK CO 215056 VK8RS SOM05 SO.110 H JAIVOK SOL15056 VK8RS SOM05 SO.110 H JAIVOK SOL150556 VK8RS SOM05 SO.110 H JAIVOK SOL150556 VK8RS SOM05 SO.110 H JAIVOK SOL15056 VK8RS SOM05 SO.110 H JAIVOK SOL15056 VK8RS SOM05 SO.110 H JAIVOK SOL15056 VK8RS SOM05 SO.110 H JAIVOK S
02040327 K6KMN DM04>DL44 S XE2HWB		and the second second

02250640 VK8RAS 599>PM37	50.047	B HL1LTC	
02250703 VK8RAS 559	50.047	B JR2HCB	
		B JR2HCB	
02281149 VK8MS CQ CW 02290537 VK8RAS >PM85	50.110	JG3LEB B JR2HCB	
02291205 VK8MS CQ SSB	50.110		
MADOTTALL TO			
MARSHALL IS. 02220121 V73SIX >OM07	£0 014	n 727.100	
02220121 V73SIX >QM07	50.014	B JA7WSZ	
NEW CALEDONIA			
02060619 FK8SIX		B JG3LEB	
		B JA1VOK	
02151110 FK8SIX >QM05 02170605 FK8SIX FB		B JA1VOK B JG3LEB	
The state of the s	.30.072	D DOSELL	
NEW ZEALAND			
01012330 ZL TV VIDEO >CM88		V K6QXY	
01032050 ZL TV VIDEO S5 >CM88			
01071900 ZL TV VIDEO STRONG & 01112127 ZL TV VIDEO S1-5	EARLY	V K6QXY V K6QXY	
	45.2x	V K6OXY	
01122229 ZL TV VID WEAK >CM88 01162015 ZL TV VID S1-S5	45.2X	V K6QXY	
01200400 ZL TV VIDEO VY LATE			
01210111 ZL TV VIDEO >CM88 01220250 ZL TV VIDEO S1-5		V K6QXY V K6QXY	
01222100 ZL TV VIDEO S1-5	45.2X	A KEOXA	
01222100 ZL TV VIDEO S1-5 01270100 ZL TV VID, AUDIO 50	.75/.76	F K6QXY	
01280000 ZL3SIX >QM05		B JA1VOK	
02040300 ZL TV VIDEO S9++ 02040457 ZL1VHF >QM09		V K6QXY B JH7XRZ	
02040457 ZL1VHF >QM09 02040457 ZL1VHF 559		B JH7XRZ	
02142222 ZL TV VIDEO S5	45.240	V K6QXY	
02150221 ZL1VHF 02222300 ZL TV VIDEO S1, S50()	50.043	B JG3LEB	
02222300 2B IV VIDEO SI, S50 (.	23/0030	A VOOVI	-
PHILLIPINES			1
01300830 DU1EV >QM05	50.008	B JA1VOK	
01310835 DU1EV >QM05		B JA1VOK	. (
01310925 DU1/GM4COK >QM05 01310945 DU7/N7ET PJ19>QM05		H JA1VOK H JA1VOK	1
02100557 DU1EV >OM09		B JH7XRZ	
02100557 DU1EV 539	50.008	B JH7XRZ	
02100800 DU1EV >QM05		B JA1VOK	
02111254 DU7/N7ET >QM05 02111254 DU7/N7ET CW		H JA1VOK JG3LEB	. (
02120615 DU1EV >OM05		B JA1VOK	- (
02151115 DU1EV >QM05	50.008	B JA1VOK	(
02151124 DU7/N7ET & 1128		H JA1VOK	. (
02151124 DU7/N7ET CW 02151153 DU1EV	50.110	JG3LEB JG3LEB	
02131133 DOTEV	50.008	OGJEED	

02151156	DU7/N7ET	SSB	50.130	JP1GUW
	DU7/N7ET		50.130	JR7DXN
02211201			50.008	B JG3LEB
02291239	DU1EV		50.008	B JG3LEB
SABAH 02211216	H 9M6/JA1C3	JP CQ CW	50.110	JG3LEB

Reports of South America

ARGE	NTIN.	A		
02142352	LU8DIO	55 >FN00	50.112	W3TC
02142354	LW3DX		50.112	WITC
02142355	TRADIO		50.110	W3TC
.02202340	TR8DIO	57	50.110	WP4NEG
02212321	LU8EMH	55>FK96	50.115	FG1GW
02260017	LU2DKX	FF94 TEODORO	50.110	WP4NEG
02260026 02260057	LU1BQ LU6OI	GF05 JOSE FF67	50.110	WP4NEG
02260102	LU8EMH	FF94 JUAN	50.110	WP4NEG WP4NEG
02260102	LUGEMIN	FF94 JUAN	20.110	WP4NEG
ARUB	A			
02232349			50.120	PP5NW
			30.11.0	2 2 31111
BRAZI	IT.			
02040140	PY2TVI	CO DX	50.110	PU2WDX
02122357	PR1RO	579 >FK60	50.110	YV1DIG
02162138	PY1RO S	559 CQ	50.110	EA7KW
02190115	PY2BT	CQ	50.110	PU2WDX
02202324	PY2CDS	59	50.135	WP4NEG
02202334	PY2TC	57	50.110	WP4NEG
02202336	PY2AIM PY1WAG	59 57	50.110	WP4NEG WP4NEG
02232327	PP5ZAS	CO >FK68	50.110	WP4NEG
02232332	PP5WAS	59	50.110	WP4NEG
02232340	PY1WMJ	57	50.110	WP4NEG
02232341	PP5ZAS	56 GG42>FK68	50.110	WP4NIX
02240013	PS7DX	CM .	50.109	PP5NW
02252357	PY4AJ	58 GH70	50.110	WP4NEG
02260004	PY1WAG	54	50.110	WP4NEG
02260010	PY1NB	57 GG87	50.110	WP4NEG
02260023	PY1BQ	55	50,110	WP4NEG
02260054	PY2MEM PY2NO	MARCO 59 GG66	50.119	WP4NEG
02260105	PP5XZ	CO DX	50.110	WP4NEG PY8AZT
02260112	PY8AZT	CLG DX	50.110	PY2PT
02260146	PYSAZT	CHO DIL	50.120	PY2KX

CURACAO NETH. ANTILLES

W N 3 3 3	PARA 0 02232346 02232353	ZP5CGL		50.110 8 50.110	WP4NEG WP4NIX
3	PERU 02152014 02152022 02152026 02152031	OC3I OC3I 5	nus Is.) 9 F100>EL98 :	50.111 50.110 >2105 50.110	AA5XE AB5A NW5E W5ZN
	TRINI 02190004 02202320 02260106 02291845	9Y4AT 9Y4AT 9Z4BM	FK90 .	50.015 B 50.014 B 50.110 50.015 B	
3. 1	URUG 02160102 02202355 02232344 02260029	CX4CR CX2IY CX2BBR	57 FG15	50.120 50.110 50.110 50.120	WP4NIX WP4NEG WP4NEG WP4NEG
	VENEZ 02190110		A	50.110	PU2WDX

QSL Information 5Z4HW: via DL7DF

C6AGN: via W1DIG C6APX: via KC4PX OC3I: via OA4DJW T88LZ: via JR1LZK V26DX: via KU9C V31RG: via K4VU VK9LB: via DL7AFS direct or bureau XF4IH: via XE1IH, Enrique Garcia Munive, P.O. Box 118-481, 07051 Mexico D.F., MEXICO

XU7AAA: P.O. Box 10003, Vientiane, LAOS



Photo credits to JA1VOK

FIELDHUNTER'S LIST

This is a list of radio amateurs' efforts to chase and collect fields (big squares) according to the Maidenhead Locator System. Jon, SM3OJR, of Top Of Europe Contesters (TOEC) is the keeper of lists of standings of grid fields worked by radio amateurs on HF, VHF, and UHF bands.

The latest 50 MHz standings are listed below. In the list, the columns are: Position on list; Callsign; The station's own field; Number of fields worked; and Date last updated.

Readers are reminded that a grid field is a block of 10° latitude by 20° longitude, and is the first two letters of a grid square as determined by the Maidenhead Locator System.

Please send any updates to TOEC, Box 178, SE-831 22 Ostersund, SWEDEN. Fax +46-63-572122. E-mail: fieldlist@pobox.com Web page http://www.pobox.com/~field

RULES:

- 1. All fields must have been worked via passive reflectors.
- 2. All stations involved must be on the earth's surface.
- QSL cards are not required if you are certain that the other station considers the QSO to have been completed.
- All QSOs must have been worked from points within a circle of 1000 km radius.
- 5. There is no starting date for contacts to be eligible.

Field Hunter's Top List

50 MHz Standings as of January 27, 2004

	50 WH	iz Sta	andi	ngs	as or	Januar	y 2	, 20	104		K5IUA	E	L 58	0010		G7GXK	IO	28	0203
Rank	Call	Field	Fields	YYMM	Ran	k Call	Field	Field	s YYMM		W8TN		M 58	0201		VE7SKA	CN		9608
1	JA1VOK			0306		PAORDY		85	0307	132	OE4WHG	J	N 58	0203	219	WB7QBS	CN	27	9909
2	JA6RJK	~		0205		9H5EE		1 83	0105	133	W8UV	E	M 57	0201	220	SM5WPW	JO	27	0208
3	IKOFTA			0307		K1SIX		1 83	0211	134	WA5IYX	E	L 56	9508	221	ZR6DXB	KG	27	0301
-	EH7KW			0310		K5AM		1 83	0303	135	F1GTU	J	N 56	9705	222	Z23J0	KH	26	9608
4	PY5CC			0108			וע	83	0308	136	GW8FKB	I	0 56	9711	223	VY2KX	FN	26	9702
						VE1YX	727			137	AA6TT/1	F	N 56	0201	224	ES6QB	КО	25	9712
6	ON4ANT			0208		YU1EU		1 82	0202		K6FV		M 56	0205		W9JN	EN		9910
1	SV1DH			0304		AA7A		1 82	0203		KOTLM		M 55	9508		G4UCJ	IO		0207
	JA6TEW			0205		S52SK		1 82	0209		W3ZZ		M 55	9601		DL3YEE	JO		0401
9	IK2GSO			0304		YU7FU		1 82	0307		NOKE		M 55	9708		GJ3RAX	IN		9609
	JM1SZY			0212		W5FF	Di	4 81	9708		OZOJX		0 55	0207		SM6MPA	JO		0203
	IOWTD			0312		N6CA		81	0203		W4WRL		M 55	0309		SM4POB	JP		9606
	5B4AGM		99	0304		ON4KST		08 0	0011		VE3KZ		N 54	0301		NOHJZ	EN		9607
	DL7QY		98	0204		G8BCG		79	0204					0301		KL7GLL/W4			9707
14	9H1PA	JM	97	0205	59	PE1LCH	J	78	0201		ZS6NK		G 54				FM		9507
15	IZOFCC	JN	97	0301	60	OZ3ZW	J	77	0201		OZ5IQ		0 53	0112		NL7XM	FN		
16	SM7FJE	JO	96	0206	61	K1SG	F	1 77	0210		VE7XF		N 53	0209		WA6TBO	DM		9801
1.7	GOJHC	IO	96	0310	62	IZ5ENH	J	1 77	0211		G4IFX		0 52	9510		N8ZJN	EM		9809
18	DL7AV	JN	94	0301	63	AA5XE	E	1 75	0301		WA2TEO		N 52	9604		KB0PE	EM		9909
19	YT1AU	KN.	93	0205	64	4N1NB	K	74	0203		K4Z00		M 52	9706	237	OH1AJ	KP		9507
20	SM7AED	JO	93	0301	65	F6GEX	I	174	0204		WOJRP		M 52	0201		WA9PWP	EN		9611
21	I5MXX	JN	93	0308	66	ON4PS	J	74	0211		KE7CX		N 51	9605	239	ES5MC	KO		9712
22	W7RV	DM	92	0201	67	WB8XX	E	174	0307		W5AL		M 51	9707		NOXKS	EM		0004
23	G3FPQ		92	0204	68	F6HRP	JI	1 73	0202		KY5N		M 51	0109		K7UV	DN		0308
24	IK5RLP	JN	92	0210	69	WD5K	E	1 72	0007		EI7GL		0 51	0112		ES1CW	KO		9902
25	SM7BAE	JO	92	0210	70	IW1AZJ	J	1 72	0301		W6YLZ		M 50	9701		SM3VEE	JP		9910
26	W50ZI	EM	92	0307	71	N3DB	F	1 72	0307		WOFY		M 50	9707		VE2PIJ	FN		0108
27	G4IGO	IO	91	0202	72	GW7SMV		71	0204		PA2TAB		0 50	9903		SM7WT	JO		0307
28	DJ3TF	JN	91	0208	73	DL1EJA	J	71	0307		K6EID		M 50	0001		DL3AMA	JO		9503
29	G3WOS	IO	91	0301	74	W4DR	F	1 70	9602		NW5E		L 50	0301		DL5BBL	JO		9507
30	VR2XMT	OL	91	0304	75	VK4APG	00	70	9612		KL7NO		P 49	0303		OH9NYW	KP		9701
	KH6SR	BK	88	0010		NOLL		1 70	9801		W5UWB		L 49	0303		DL7ANR	JO		9706
32	PAOHIP	JO	88	0011		EH7CD	II	1 70	0105		IOCUT	J	N 48	9504		HL9UH	PK		9709
	W6BYA		88	0108		F3CN		1 70	0203	164	WA5QCP	D	M 48	9509		W5DO	DM		9912
-	JO6EDD		88	0204		W3BO		70	0205	165	ZL3AAU	R	E 48	9801	252	PA5MS	JO	18	0203
-	EH8BPX		88	0205		GW8ASA		70	0206	166	WIAIM	F	N 47	0004		PE1EBJ	JO	17	9603
	GW4VEQ		88	0207		N5JHV		1 69	9605	167	YO7LXT	K	N 47	0107	254	WB8RUQ	EN	17	9606
	TI5KD		88	0304		IK1EGC		1 69	0105	168	G4HBA	I	0 46	9502	255	ES2RJ	KO	17	9902
	KITOL		88	0312		W4UDH		1 69	0312	169	VE3FGU	F	N 46	9708	256	K4LYN		17	9908
	F5LNU		87	0207		TIZNA		1 68	9503	170	K0CJ	E	N 46	0204	257	LY2MW	KO	17	0005
	YT1VV	JN		0211		PAZVST	-	68	9805	171	VE3TMG	E	N 46	0401	258	SM7VHS	JO	17	0007
-	PA4PA	JO		0211		CT1DYX		1 68	0011	172	DJ10J	J	N 45	9707	259	SMOTSC	JO	17	0306
	VK3SIX		87	0211					0204	173	DJ9ON		0 45	9908		KD4GVW	EM	16	9505
-		~				YU1HQR		1 68	-		LY2SA		0 45	0203		G8DCJ	IO	16	9509
	F8OP		87	0307		NH7RO		68	0306	175	SM7NNJ		0 45	0306		N7YAP	DN		9706
	SP6GWB		86	0210		F5DE		1 68	0401		W3OTC		M 44	9602		ES5DE	КО	-	9712
45	IWOGPN	JN	86	0307	90	KB6NAN	C	4 67	0211		KA9UZW		N 44	0202		G8CDW	JO		9812
												-					-		

Rank Call

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KOETC

G1IOV

YT1VP

ZS6WB

YO7VS

SM7SCJ

PA3BFM

CT3HF

OH1 LEU

PA000S

K1GPJ

G30IL

YU1BW

SV1EN

ON5PII

KH6HH

WA5JCI

W3EP

N4CH

GOFYD

F1AKE

KOCS

W9JUV

H44PT

WB8YFE

PE1GNP

SMOKCR

PA1SIX

GIOOTC

W1JR

120 OZIIEP

VR2XMO

OE3MWS

KG6UH/DU1

W4TJ

S59F

Field Fields

EM 67

IO 67

KG 66

IO 65

JO 65

FM 65

JN 65

TM 64

KP 64

FN 63

KN 63

PK 62

OL 62

JO 62

BL 61

FN 61

FM 61

JO 61

DM 61

EN 61

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0301

9706

9811

9908

Rank Call

K6IPF

VK6HK

N5BBO

WA1ECF

K800K

KC8LGL

SM7OYP

GM7NZI

VE3CTT

SM3EQY

N5HHS

N8NQS

G6FOZ

SM5NVF

K7MCX

PA5AA

KH2CY

DF9CY

OZ 6AO

W6YLL

G4SEU

HB9SJV

G8BKF

SM7JUQ

PACION

G6LEU

OK1DDO

HP3XUG

W9VA

G3KLL

G4DCJ

W8WNX

VE6XT

K8ZES

VK3ALM

GW6VZW

SMOKAK

K9LCR

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Field Fields

CN 44

OF 43

EL

FN 43

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EM 43

JO 43

IO 43

JP

EM

EN 40

JO 38

IO 38

JO 38

CN 37

DM

JO 37

FM 36

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JO 35

CM 33

IO 33

JN 32

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JO 30

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JO 30

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IO 29

JO 29

QF 28

DO 28

EN 28

EN 42

FN 42

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